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REMARKS

Claims 1-3, 5, 6, 12, 13 and 29-33 are currently pending. Claims 1-3, 5, 6 and 13 were rejected under 35 U.S.C. 102(b) as being anticipated by Oh. Claims 12 and 29-33 were rejected under 35 U.S.C. §102(b) as being anticipated by Sugimoto. Claims 1 and 12 are currently amended. Reconsideration is requested.

Claim 1 distinguishes Oh by reciting that at least one conductive protrusion is formed on the inner layer trace. The Office suggests that element (132) of Oh is a conductive protrusion. However, Oh consistently describes element (132) as a "conductive film." Further, the illustrations of conductive film (132) in Figs. 3 and 6 of Oh show it to be a planar structure. The description and illustration are consistent with a generally accepted meaning of the word "film" which is a thin skin or membrane. In contrast, the present application describes at pages 16-17 and illustrates in Figs. 1, 8 and 9 that the protrusions are non-planar bumps on the conductor. This is consistent with the a generally accepted meaning of the word "protrusion" which is something that juts-out or projects. Because the Oh film and the recited protrusion differ so, Applicant requests that the rejection of claim 1 be withdrawn.

Claim 1 further distinguishes Oh by reciting that the conductive trace is disposed on the rigid substrate material of the inner layer. The Office suggests that Oh shows this feature because conductive trace (141) is disposed on inner layer (122). However, Fig. 3 of Oh shows that conductive trace (141) is actually disposed on flexible extension (140), not inner layer (122). In particular, Oh uses a flexible extension to expose a trace for interconnection, whereas the presently claimed invention uses a portion of the rigid inner layer substrate itself to expose a trace. Claim 1 has been amended to emphasize that the inner layer is rigid, support for which is

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in the specification at page 10, lines 6-9. Because the flexible extension of Oh and the recited rigid inner layer differ so, Applicant requests that the rejection of claim 1 be withdrawn.

Claims 2-3, 5, 6, and 13 are dependent claims which recite further distinguishing limitations. For example, claim 3 recites that a portion of the outer layer is removed to provide access to the inner layer trace. In contrast, Oh describes use of a flexible extension (140) that extends beyond the edge of the board. Further, claims 2-3, 5, 6, and 13 are allowable for the reasons already stated with regard to claim 1, and withdrawal of the rejections is respectfully requested.

Claim 12 distinguishes Sugimoto by reciting that the accessible conductive trace is disposed on an inner layer of a printed circuit board. The Office doesn't suggest that this feature is illustrated in Sugimoto, but rather that it can be found somewhere in Col. 3, lines 5-15. Applicant assumes that the Office is comparing element (20) of Sugimoto with the presently claimed printed circuit board. Since element (20) of Sugimoto is a liquid crystal panel rather than a circuit board, claim 12 has been amended to emphasize that the claimed features are part of a printed circuit board. Withdrawal of the rejection of claim 12 is therefore requested.

Claims 29-33 are dependent claims which further distinguish claim 12, and are allowable for the reasons stated above with regard to claim 12. Withdrawal of the rejections of claims 29-33 is therefore requested.

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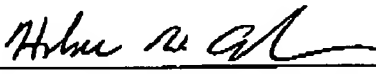
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Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Holmes W. Anderson, Applicants' Attorney at 978-264-4001 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application, including all claims currently under examination, is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

November 19, 2004  
Date

  
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Docket No. 13888ROUS02U 120-042  
dd: 11/21/2004